

IN THE CLAIMS:

Please substitute the clean copy of amended claims 1, 3, 10, 11 for claims 1, 3, 10, 11 on file.

REMARKS

Claims 1 through 12 are in the application.

The specification has been amended by adding proper headings as required pursuant to MPEP 601. Also, reference to the claims in the specification has been eliminated and replaced with the proper wording of the claims, where necessary.

Reconsideration and withdrawal of the rejection of claims 1-12 under 35 USC 112, 2nd paragraph, as being indefinite is respectfully requested. Claims 1, 3, 10, 11 have been amended taking into consideration the examiner's remarks in regard to indefiniteness and are believed to conform in their amended form to the requirements of 35 USC 112. In regard to the wording [ "encapsulated water-tightly in a carrier open at the top" ] applicant respectfully submits that this is no contradiction: As described in the paragraph bridging pages 3 and 4 and the full paragraph of page 8, the carrier can be embodied as a container of hard plastic material which is open at the top. During

manufacture of the handle, the electronic device can be inserted into the container via the open top. For protecting the electronic device against sliding and exposure to media (for example, water), the electronic component is encapsulated (embedded) in this container, for example, with a soft plastic material (46 in Fig. 6). The opening at the top is advantageous because the open top side of the container is planar, and a uniform filling of the container with the potting compound can be realized. The configuration with potting compound 46 is clearly illustrated in Fig. 6. Therefore, the wording of claim 1 in respect to "encapsulated water-tightly..." is correct.

Reconsideration and withdrawal of the rejection of claims 1-6 and 9-12 under 35 U.S.C. 102(b) as being anticipated by DE 197 45 149 A1 is respectfully requested.

AL The door handle of the cited prior art reference is provided with a hollow space for receiving electronic components. For this reason, the handle has two shells: a C-shaped base shell and a C-shaped cover shell connected by a snap-on connection to the leg ends of the base shell. A disadvantage of such a design is that the terminal snap-on connection of the shells does not provide sufficient strength for use as a door handle and that on the front side a visually disruptive contact seam is formed where manufacturing tolerances become particularly obvious.

A3 A further disadvantage is that the electronic components embedded in the base shell by means of plastic resin can be removed only with difficulty when the door handle is no longer to be used. This is a problem for automobile manufacturers because in the future they will be required by law to dispose of old vehicles in an environmentally safe way. It is also a problem that the plastic resin for embedding the electronic components over time will creep into the lower part of the shell and water-tight embedding of electronic components is no longer ensured.

When the arrangement of the two shells is reversed, i.e., when the base shell is mounted such that the opening faces upwardly, flow of the plastic resin is prevented but the contact seam of the two shells becomes visible. Such a visible contact seam is not desired because manufacturing tolerances will be even more visible at this location.

The present inventions solves all of the aforementioned problems, and the new door handle has the following features:

- sufficient strength in use;
- a perfect design and appearance even in the case of manufacturing tolerances;
- easy mounting and demounting of the electronic components;
- possibility of individual, environmentally safe disposal of the components of the door handle;

- flowing or creeping of the resin is prevented.

These features are realized by a special connection of the U-shaped shell with the C-shaped front strip and by embedding the electronic components in a carrier open at the top (for example, a container). The two shells are no longer snapped into place at their leg ends but the C-shaped strip engages in addition to the front area also a significant peripheral area of the U-shaped shell. Figs. 2 and 3 show that at least one entire length of the U-shaped shell is engaged. The inventive arrangement not only covers the seam in the visible area but provides a very stable connection which is necessary for use as a door handle.

The encapsulation of the electronic components in the carrier open in the upward direction ensures a water-tight arrangement of these components for the entire service life of the door handle. When the carrier is in the form of a separate container, it can be removed easily from the U-shaped shell when a malfunction of the electronic components occurs or the door handle must be removed for other reasons. Such an advantageous configuration of a door handle is not known from the prior art.

The door handle according to the invention not only has provided a solution to the object of arranging the connecting seam of the shells such that it is protected from view but also

with regard to providing a door handle of satisfactory strength for permanent use of the door handle while ensuring that the electronic components are water-tightly enclosed in the shells and can be mounted or removed at any time, as needed.

In contrast to the cited reference, assigned to the assignee of the instant application, the front strip not only covers the front or the opening area of the U-shaped shell but also engages peripherally to a significant degree the leg ends of the U-shaped shell by covering them at the top and bottom. This is done by engaging across the U-shaped shell (Fig. 3). This provides a strong and resilient door handle.

The feature of water-tight embedding of the electronic components in a carrier which is open at the top ensures that the electronic components are not affected by moisture. Also, it is possible to exchange the carrier with the electronic components at any time; this is not possible in the prior art device.

Claims 7 and 8 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. Applicant appreciates the indication of allowability of these claims but is of the opinion that claim 1, as set forth above, is not anticipated by or obvious in view of

the cited prior art so that additional claim limitations based on claims 7 and/or 8 are believed to be unnecessary.

Therefore, in view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Any additional fees or charges required at this time in connection with the application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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Encl.: amended claims 1, 3, 10, 11 (clean copy and marked-up version); amended paragraphs of pages 1, 2, 3, 4 (clean copies and marked-up version)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on June 27, 2003

By: *FK*  
Friedrich Kueffner

Date: June 27, 2003

CLEAN COPY OF AMENDED CLAIMS 1, 3, 10, 11

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- BB 1. (Amended) External door handle for vehicles, comprised of a handle (10'', 10''') arranged on the outer side of the door and being hollow at least partially,

wherein the handle (10''; 10''') comprises at least one U-shaped shell (21; 21'') whose U-space (44, 44') serves for receiving the electronic components (16), and

wherein in the connected situation the U-shaped shell (21, 21'') is spanned at the visible side by a C-shaped front strip (20'', 20''') and is anchored thereat, wherein the two C-end sections (25''; 25) of the front strip (20''; 20''') engage an additional circumferential area of the U-shaped shell (21''; 21''') from above or from below and

the electronic components (16) are encapsulated water-tightly in a carrier open at the top.

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- AB 3. (Amended) External door handle according to claim 1, wherein the U-shell opening (32') of the U-shaped shell (21''') is aligned relative to the front section (45) of the C-front strip (20''') and the front strip (20''') with its front section (45) covers directly the U-shell opening (32') of the shell (21''').
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10. (Amended) External door handle according to claim 1, wherein the front strip (20; 20'', 20''') itself is provided at the visible side with a let-in decorative cover (19).
  11. (Amended) External door handle according to claim 1, wherein the carrier for the electronic components (16) is a container (15) having six sides, wherein five of the six sides are walls and wherein one of the six sides is open and faces upwardly after mounting in the handle (10, 10'', 10''').
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MARKED-UP VERSION OF CLAIMS 1, 3, 10, 11

1. (Amended) External door handle, ~~in particular~~ for vehicles, comprised of a ~~bracket-shaped~~ handle (10'', 10'') arranged on the outer side of the door and, ~~at least over portions thereof,~~ being hollow at least partially,

wherein the handle (10''; 10'') comprises at least one U-shaped shell (21; 21'') whose U-space (44, 44') serves for receiving the electronic components (16), and

wherein in the connected situation the U-shaped shell (21, 21'') is spanned at the visible side by a C-shaped front strip (20'', 20'') and is anchored thereat, wherein the two C-end sections (25''; 25) of the front strip (20''; 20'') engage an additional circumferential area of the U-shaped shell (21''; 21'') from above or from below and

the electronic components (16) are encapsulated water-tightly in a carrier open at the top.

3. (Amended) External door handle according to claim 1, wherein the U-shell opening (32') of the U-shaped shell (21'') is aligned relative to the front section (45) of the C-front strip (20'') and the front strip (20'') with its front section (45) covers directly the U-shell opening (32') of the shell (21'').

10. (Amended) External door handle according to claim 1, wherein the front strip (20; 20'', 20''') itself is provided at the visible side with a ~~preferably~~ let-in decorative cover (19).
11. (Amended) External door handle according to claim 1, wherein the carrier for the electronic components (16) is a container (15) ~~enclosed by~~ having six sides, wherein five of the six sides are walls on five of six sides, whose and wherein one of the six sides is open and opening faces upwardly after mounting in the handle (10, 10'', 10''').